

HOOP STRESS RELIEF MECHANISM FOR GAS TURBINE ENGINES

ABSTRACT OF THE DISCLOSURE

- 5 A hoop stress relief mechanism is disclosed for use on a rotary body to relieve stress caused by both thermal and centrifugal forces. The mechanism may consist of a J-shaped slot cut from the outer rim of the rotary body a distance inwardly toward the axis of rotation, the slot having a curve in its inward end that curves back towards the outer rim. The J-shaped slot may
- 10 extend through the rotary body to join its two faces. The J-shaped slot may be fabricated by an electric discharge wire machine. The electric discharge wire machine may make multiple passes in order to smooth the bottom surface of the curved slot portion.